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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK5WI: Sundays, 1100 hours EST, 7146 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK5WI. Intrastate working frequency, 7125 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3573 and 7146 Kc., \$1.01 and 146.35 Mc. Intrastate working frequency 7135 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3569 and 1480 Kc., 3569 Kc. change to 1480 Kc. 0915 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

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AMATEUR RADIO

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EDITORIAL



THE WHEELS OF CANBERRA

In May, 1953, we informed you that the Postmaster General's Department had agreed to the issuance of the Technician License, or as it is now known, the "Amateur Operator's Limited Certificate of Proficiency."

In December, 1953, we recorded our disappointment at the delay in completion of machinery necessary to fully implement the scheme.

Now, we are happy to announce that "the wheels of Canberra" have completed their slow revolutions and every last cog has been fitted into its assigned place. The result may be read in "Amendments to the Wireless Telegraphy Regulations CSR 1954 No. 50."

The self same document also requires future applicants for both "A.O.C.P." and "Limited A.O.C.P." to pay one pound examination fee.

An imposition that we know will not in anyway dampen the enthusiasm of the genuine candidate.

To turn to the bright side of the picture, we remind A.O.C.P. candidates who failed in Morse Code only since January, 1953, that they are now eligible for Limited A.O.C.P. and should make immediate application.

Many technically capable enthusiasts who lacked morse qualifications now have the opportunity to show their ability and keenness. Undoubtedly in the near future the v.h.f. bands will become densely populated by a new race of keen experimenters. It is from the ranks of these men that the C.D.E.N. will draw most of its personnel in future national emergencies. So give them every encouragement chaps!

FEDERAL EXECUTIVE.

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75 ohm resistance, two make, two break circuit, operating on 12v. 17/6 each
1500 ohm resistance, one make circuit, very sensitive, operating on 44v. £1/10/- each

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6—6SN7	1—6H6
3—6L7	2—6AC7
2—6AG7	6—717A
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Brand new, £12/10/-

THE COMPLETE AMATEUR

BY TOM ATHEY,* A.I.R.E.

SECTION SIX

Speech Amplifier and Modulator

Audio Output—35-40 Watts

Class B Zero Bias, Cathode Coupled

Chassis: 17" x 10" x 2"

Panel: 19" x 5 Units

Type of Modulation: Plate and Screen

As this unit is where the readability of your signal commences, good care in the beginning will help you in getting out a sharp, clear, intelligent signal.

The microphone is fed into a 6SN7 twin triode valve, each unit acting as a triode driver. Some people prefer to use a high gain pentode here, but I have found that low gain triodes in cascade give more stability and yet provide the same gain. Gain is controlled in the second stage. The output is then fed to a voltage driver stage which has a high frequency cut control included in the plate circuit. This is a simple means of lopping off the highs in the speech peaks and yet dispensing with the building of a clipper circuit.

The output of the driver is transformer coupled to a pair of 6M5 valves (6V6s will do). This transformer has a turn ratio of 5 to 1 and is a single ended primary to push pull secondary. This will provide sufficient lift to the power drivers. These valves are used as

triodes and the cathodes have a high resistance of 150,000 ohms in each leg of the cathode return.

Adequate voltage will be provided to feed the screens of the EL34 valves. You will notice that the EL34 grids also are connected to this source through 20,000 ohm resistors. It is perhaps as well to obtain two resistors of equal tolerance here to ensure a balanced feed.

The plates are connected to the modulation transformer and have a load match of 4,000 ohms at 375 volts on the plates. The cathodes of the modulation valves are earthed, consequently no bias is needed.

Decoupling networks are included in all speech amplifier h.t. supplies to ensure minimisation of hum or cross modulation.

The secondary of the modulation transformer has a splatter suppressor valve included. This is to suppress negative peak distortion and will assist in delivering higher audio content to the modulation of the final and resulting in higher output to aerial. Actually only 25 watts of audio are needed for 100% modulation, but by the inclusion of the splatter suppressor it is possible to "turn up the wick" without risk of causing splatter on adjacent portions of the band being used.

Switching details come under a separate section, consequently that function will be described in detail in that section.

A word here about wiring. Keep your filament wiring as close to the corner of the chassis as practicable. Hum

in a speech amplifier is most objectionable, but if great care is taken much of this nuisance can be avoided. Make all your grid leads short and shield them in the early stages, particularly in the microphone input circuit.

The values in the circuit are self explanatory and may be varied slightly without any serious loss.

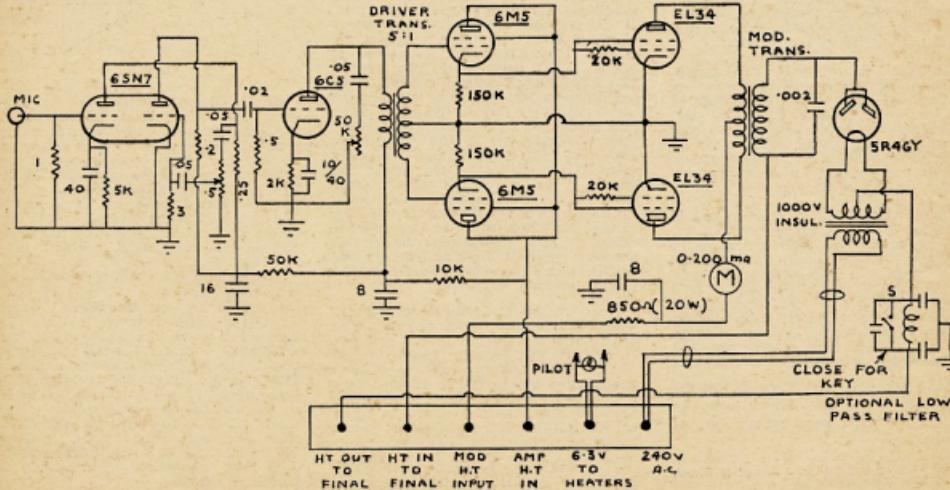
A meter in the plate lead will give indication of voice swing and should be included as a must. Any meter indicating 0-200 Ma. will do and a mark can be made at which over modulation occurs and which should not be then exceeded.

The transformer for the splatter suppressor valve must have a high DC voltage insulation rating—say 1,000 to 2,000 volts. This transformer has the whole of the DC final supply impressed on it together with the audio peaks. Consequently it must be able to handle the high voltage without risk of breakdown.

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• Please pay your Subscriptions PROMPTLY when due. Failure to do so may result in the loss of valuable issues of "Amateur Radio." High costs of production make it necessary to limit the number of extra copies printed each month.

*Ex-Instructor Qld. Division W.I.A. Classes; 41 Mountford St., New Farm, Brisbane.



A Great Circle Nomogram

BY A. K. HEAD,* VK3AKZ

If you have not got a great circle map centred on your locality, then the need may arise to calculate the great circle bearing and distance of various places round the globe. A very good description of how to do this by trigonometry is given in the R.S.G.B.'s Amateur Radio Handbook. If you are not up on trigonometry, then here is a nomogram for doing the same thing.

Since it needs to be large for accuracy, instructions are given for drawing it yourself rather than printing a not-so-accurate one. Even if you are up on trigonometry, this nomogram will do it faster than you can calculate. In the R.S.G.B.'s Handbook it is estimated that it takes about 100 hours to do a complete great circle map. Most of this time would be spent in calculations. You could do it in about 10 hours if you use this nomogram, a more practical proposition.

CONSTRUCTION

The only materials you need are a ruler, pencil, and a sheet of graph paper. An ideal size for the graph paper is one on which you can draw a 10 inch square. This size will enable you to read the scales to one or two degrees. The more common foolscap sheet of graph paper will restrict you to a seven inch square, but this should be accurate enough for most purposes.

Anyhow, on the graph paper, draw the largest square it will take. The two sides and the top of the square will be the three scales of the nomogram. Then calibrate these by using the accompanying table. For the top side, start with 0 degrees at the left and work across to 180 degrees on the right. The table tells you where the calibration marks go as a percentage of the length of the side of the square.

For example, with a 10 inch square, the 60 degree mark will be 2.5 inches from the left hand corner, 90 degrees at 5 inches, 120 degrees at 7.5 inches, etc. Having gone from 0 to 180 degrees, you now put the alternative calibrations on each of the marks. As a check, notice that the two calibrations on each mark always add up to 360 degrees.

The left hand edge of the square is calibrated in the same way, using the same table, starting with 0 degrees in the top left hand corner, coming down to 180 degrees in the bottom left hand corner, then working back up to 360 degrees. The right hand edge of the square is calibrated the same as the left hand edge with 0 and 360 degrees at the top right hand corner and 180 degrees at the bottom right hand corner.

This completes the construction of the nomogram and it should now look like Fig. 1 (but with more calibrations, of course).

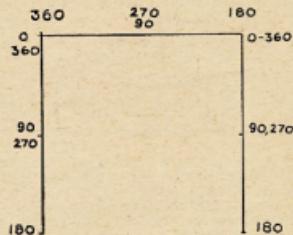


Fig. 1

HOW IT WORKS

First you need to know your own and his latitude and longitude. These only need be to the nearest degree. Next turn the latitudes into co-latitudes. This is simply the number of degrees from the North Pole, whereas latitude is the number of degrees from the Equator. So for latitudes South of the Equator, add on 90 degrees to give the co-latitude. For latitudes North of the Equator, subtract the latitude from 90 degrees to give the co-latitude.

Having calculated your and his co-latitude, add them together and mark the corresponding point on the right hand scale. Then subtract the smaller of the two co-latitudes from the larger and mark the corresponding point on the left hand scale. Join these two marks with a straight line or just lay the ruler across them.

Next you work out the difference in longitude between yourself and him. If you are both in the same hemisphere (East or West), then you subtract the smaller longitude from the larger. If one is in each hemisphere, then add the two longitudes. Locate the corresponding point on the top scale, run straight down (using the lines of the graph paper as a guide) until you come to the ruler, then run sideways to the right hand scale and read the answer. This is his great circle distance from you. The answer is in degrees, but as each great circle degree is 69 miles, a simple multiplication gives you the answer in miles. Notice that since there are two calibrations to each mark you have two answers. Both of these are correct, the smaller being the short way round, the larger, the long way round.

Next we use the same nomogram to calculate his great circle bearing. You have just found the great circle distance (the short way round). Leave this in degrees and look up your co-latitude again. Add one to the other and mark the answer on the right hand scale. Subtract one from the other and mark on the left hand side. Join these two points with the ruler.

Then mark his co-latitude on the right hand scale, go sideways from here across

to the ruler and then straight up to the top scale, which tells you the great circle bearing. Once again you have two answers, but unfortunately only one is right. The bearing is given on the 360 degree system with North 0 or 360, East 90, South 180, West 270. Common sense will tell you which of the bearings is the right one. This ambiguity is not really the fault of the nomogram as exactly the same thing happens when you work it out by trigonometry.

AN EXAMPLE

A picture is worth a thousand words, so here are two for good measure.

We will work out the great circle bearing and distance of Los Angeles (latitude 34N longitude 118W) from Melbourne (latitude 37S longitude 145E). First the co-latitudes. As Los Angeles is in the North latitude, its co-latitude is 90 minus 34, equals 56. Melbourne is South latitudes, so its co-latitude is 90 plus 37, equals 127. Add these two co-latitudes together, giving 183 and mark this on the right hand scale. Subtract one co-latitude from the other giving 71, mark this on the left hand scale. Join 71 to 183 with the edge of the ruler.

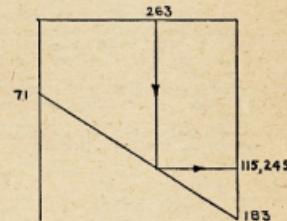


Fig. 2

Next we need the difference in longitude. As one is West and the other East, the difference in longitude is 118 plus 145, equals 263. Start at this point on the top scale, come down to the ruler and across to the right hand scale. The great circle distance is 115 or 245 degrees. Fig. 2 shows the lines on the nomogram. Turning these distances into miles, the short way round is 7,935 miles and the long way round is 16,905 miles.

Figure 3 shows the lines which are drawn in calculating the bearing. Add the co-latitude of Melbourne to the short great circle distance, 127 plus 115, equals 242, mark this on the right hand scale. 127 minus 115, equals 12, mark this on the left hand scale. Join 12 and 242 with the ruler. The co-latitude of Los Angeles is 56, start at this point on the right hand scale, come across to the ruler and up to the top scale where you read the great circle bearing as 65 or 295 degrees. Since Los Angeles is North East from Melbourne, the bearing to take is 65 degrees.

* Assistant Technical Editor, 3 Annadale Street, Kew, E.4, Victoria.

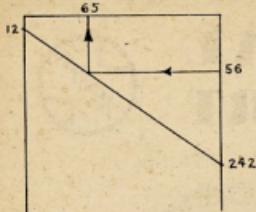


Fig. 3

THE GREAT CIRCLE MAP

The following advice on constructing a great circle map is adapted from The Amateur Radio Handbook, which is now unfortunately out of print.

Instead of calculating the data for specific towns, the entire graticule of the lines of latitude and longitude should first be constructed. This is done by calculating the bearings of the points at the cutting of the "tens" of longitudes with the "tens" of latitude, i.e. 10, 20, 30, etc., East or West with 10, 20, 30, etc., North or South. A simplification could be made by the use of lines 20 degrees apart, but the choice lies with the reader and depends on the size of the map required. Using the 10 degree spacing, some 800 or 900 points would have to be calculated. By trigonometry this would take 80 or 90 hours, but can be done much quicker by the nomogram. For instance, one timesaver is that the distance calculations for the 36 points on each parallel of latitude can be done without shifting the ruler.

For the choice of a scale on which to base the map, 1,000 miles to the inch will give a map about two feet in diameter, which is a useful size. A good stout drawing paper should be used and mounted on a drawing board. A pair of beam compasses should be borrowed from a draughtsman, or made up from Meccano or wood. Draw the large circle

which is to contain the map and outside it another circle with say a half inch larger radius. Between these circles mark the points and degrees of the compass with the aid of a protractor. The usual scheme of having North at the top is probably the best.

The next step is to construct a scale about 13 inches long with a drawing pin at one end on which the scale will pivot about the centre of the map. The scale should be of stout material and it should be graduated uniformly from 0 to 180 degrees, starting at the drawing pin and finishing at a distance from the pin equal to the radius of the map. By the use of this scale the values of the distance can be plotted directly on the map without conversion to miles. Care should be taken to ensure that the edge of the scale forms a radius of the circle. The edge will have to stop short of the centre of the map to allow for the drawing pin, but it should be so constructed that the edge, if produced, would cut the centre of the drawing pin exactly.

The outer end of the scale can then be placed on the appropriate bearing calibration and the position of the point marked from the 0-180 degrees distance scale. It is advisable to do all calculations before starting to plot and then to plot the whole of one meridian of longitude and to connect up the points before proceeding to the next meridian, as the apparently strange positions of some of the points may otherwise cause some confusion.

Having constructed the graticule, the interesting part of the work is reached in the insertion of the outlines of the various continents and countries. An ordinary school atlas will supply the necessary information and the outlines can be followed from meridian to meridian or parallel to parallel as they may run. As an additional check, the positions of special capes, towns and other features can be calculated individually.

It is not expected that many Amateurs in South Eastern Australia would be interested in constructing a great circle map as published maps are available. But with VK land ranging from Cocos to Antarctica and up to New Guinea, it is felt that there are some who would be prepared to make this useful accessory to Amateur Radio. The writer would be pleased to hear from those who try, how long it actually takes to construct a map, and will answer any queries you may have.

— — —

AMATEUR BANDS AVAILABLE

1.84	1.86 Mc.	1.88	2.96 Mc.
3.5	3.8	1.576	585 "
7	7.15	1.215	1,300 "
14	14.35	2.300	2,450 "
21	21.45	5,650	5,850 "
26.96	27.23	10,000	10,500 "
28	30	121,000	22,000 "
50	54	130,000	Mc. and
144	148	Above.	

* Available for emergency network purposes only. Normal Amateur activities are not permitted in this band.

† Temporary allocations.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	13	4
VK3VW	9	3
VK4RY	2	2
VK4HR	4	2
VK5LCL	1	1
VK5DW	3	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK3AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK3ACL	14	1
VK3ZD	16	1
VK3HO	17	1
VK3ABC	8	1
VK3WH	15	1

DX C.C. LISTING

Call	No. Ctr.	Call	No. Ctr.
VK4HR	12	VK4HT	17
VK3ZD	13	VK3WVJ	18
VK4PF	21	VK4LP	8
VK3EE	16	VK4DO	20
VK3RU	2	VK3MS	24
VK3JD	155	VK3UW	25
VK3WS	9	VK3PM	103
VK3KW	4	VK3HO	25
VK3LN	11	VK3ADT	13
VK3AWW	14	VK3RAHA	15
VK3KJ	13	VK3WV	5
VK4WF	16	VK3IG	5
VK3ATN	28	VK3EG	18
VK3ARW	23	VK3SLC	27
VK3DD	6	VK3AUP	30

C.W.

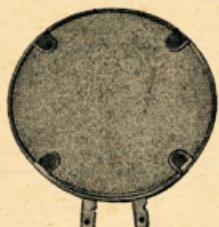
Call	No. Ctr.	Call	No. Ctr.
VK3EZ	214	VK3PH	31
VK3KS	10	VK4RF	22
VK4HR	8	VK3YD	27
VK3HJ	15	VK3YD	3
VK3JF	191	VK3EJK	25
VK3JF	29	VK3LJ	15
VK3JF	26	VK3T	37
VK3CX	123	VK3PL	38
VK3RJ	2	VK3UW	116
VK3EO	12	VK3OY	44
VK3JC	151	VK3LJ	24
VK3EW	15	VK3PL	11
VK3ER	18	VK3LJ	17
VK3SA	23	VK3PL	13
VK3SO	33	VK3XK	41
VK3QH	38	VK3R	104
VK3EO	43	VK3R	19
VK3JW	4	VK3AP	14
VK3QL	5	VK3NC	19
VK3DO	28	VK3OY	32
VK3PK	30	VK3R	101
VK3JY	21	VK3AEZ	100
VK3YJL	39	VK3RJ	42

OPEN

Call	No. Ctr.	Call	No. Ctr.
VK3EZ	4	VK3LZ	11
VK3HR	210	VK3VQ	46
VK4PF	32	VK2ASW	63
VK3JF	12	VK3ADT	14
VK3JF	8	VK3RAHA	11
VK3JF	10	VK3WV	31
VK3HJ	3	VK3IG	47
VK3EL	10	VK3PL	49
VK3EKW	13	VK3RC	21
VK3DII	2	VK3ZC	34
VK3EKX	17	VK3ZC	10
VK3DII	16	VK3R	55
VK3DW	45	VK3LZ	107
VK3AWW	29	VK3AWN	26
VK3LJ	144	VK3VQ	108
VK3FL	26	VK3VQ	18
VK4WF	40	VK3UL	27
VK3MC	5	VK3EPJ	44
VK3JW	12	VK3EPJ	104
VK3JW	137	VK3LZ	17
VK4RW	52	VK3LZ	20
VK4ED	22	VK3T	37
VK3HT	41	VK3YD	103
VK3EJK	19	VK3YD	35
VK3EJK	9	VK3LZ	108
VK3AEZ	20	VK3SHI	81
VK3JJI	33	VK3ACK	6
VK3SLC	55	VK3TG	39

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- Will not blast from close speaking.
- Precision engineering ensures realistic reproduction and high output with long life and dependable operation.

- The only unit available with a genuine sintered metal filter.
- Good high frequency response ensures excellent speech reproduction.
- Aluminium diaphragm mechanically protected and frequency controlled by "Zephyrfil" filter.
- Australian made throughout.
- Only carefully selected cements used throughout, to suit Australian climatic conditions.

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This crystal microphone requires to be terminated with a high value parallel load of the order of 1 to 5 megohms for best results.

The mass of the moving parts is small, hence the sensitivity is high and a high efficiency is achieved.

Light gauge solder lugs are provided so that excessive heat in soldering will not be transmitted to the crystal element.

When mounted in a microphone cage, it is recommended that the insert be suspended in rubber, to eliminate shock and vibration.

One of the connecting lugs is directly connected to the case and care should be taken to solder the metal shield of the microphone cable to this solder lug, keeping the unshielded portion of the centre conductor as short as possible to eliminate hum pick-up.

All crystal elements are mounted on high grade suspension pillars, being fixed thereto with a good quality cement, thus ensuring stability and long life.

Case 1 1/2" diameter (rear), 3/8" thickness, 1-13/16" overall diameter (front) with filter fitted.

Frequency Response = 60-6,500 c.p.s.
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Impedance = Model 1XA Grid 1 — 5 megohms.



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Getting the Most Out of Your Receiver

A Few Hints on Proper Handling

ALTHOUGH Amateur Radio is generally considered to be a friendly hobby, one good way to get a punch in the nose is to tell a Ham he does not know how to get the most out of his receiver. In no uncertain terms he will tell you (before or after the punch—this varies with the individual) that he has had a Ham ticket for x years, and that if anyone can squeeze the last bit of usefulness out of the receiver, he can. Then he is likely to go on and say that there are some things that are wrong with his particular receiver, because it is a real dog that was designed by some self-styled engineers who were in reality idiots studying nights to become morons.

This article assumes that there are still a few non-belligerents who might be interested in getting the most out of their present receivers at no great cash outlay.

DESIGN FAULTS

Let's take a very common case, the one where the owner criticises his receiver because it has too much warm-up drift. (Actually, receivers are getting better in this department every year, but you still hear the criticism.) A very simple dodge is to prop up the lid an inch or so, with a match folder or other convenient spacer, to provide for better air circulation. The maximum operating temperature will be reduced, and so will the warm-up drift. This is true, of course, of only the solid-cover receivers—you won't improve the circulation much by propping up a cane-metal cover.

Another fault easy to find with a receiver is the location of the tuning knob—it's either too low or too high. The solution is simple if the knob is too low for you—prop up the receiver with books or a shelf of the proper height. (A shelf leaves a convenient cubbyhole under the receiver for log-book, call book and scratch pad.) If it's already too high, there isn't too much you can do, although some operators drop the rear of the receiver into the table so that the panel is sloping.

Some receivers come through with tuning knobs that are too small, but anyone who suffers with this very long isn't thinking down the middle—it's easy to replace the knob with a larger one of your choice.

Frequency calibration is something that two-dial (bandset and bandspread) receiver owners worry about unnecessarily (in our opinion). It is, of course, quite difficult to set up the bandspread dial to read accurately by setting the bandset dial to some predetermined mark, but it's a cinch to do it if you have a 100 or 1,000 Kc. standard around the shack. At least it's a cinch to set it up for the band edge you're working closest to, and that's all you have to worry about during any particular operating period.

* Reprinted from "QST," January, 1954.

If the receiver design is such that the bandset knob can get knocked out of adjustment (a frequent complaint), put a dial lock on it. Then when you set up the receiver on a band edge and lock the bandset knob, you have a well-calibrated receiver for that part of the band. If you do not want to drill any additional holes in the receiver panel, it is sometimes possible to mount the lock on a strip of metal that is fastened to the receiver by screws under the bottom of the receiver or under the locknut on the dial shaft bushing.

There are so-called design faults that can be overcome by digging into the set and changing it over, but this should be done only if you have experience and confidence with receivers. Even

as the tuning indicator. Leave the tuning alone and just touch up the i.f. trimmers for maximum S meter reading.

Many two-dial receivers can be improved in performance by aligning the front ends in the middle of the Ham bands, letting the performance degrade if necessary outside these bands. All this means, of course, is peaking the r.f. and mixer stages while the receiver is tuned to a Ham band, and the instruction book will tell you where to find the trimmers. Use the capacity trimmers if the Ham band falls near the low-capacity end of the bandset condenser, and the inductance trimmers if the Ham band falls at the high-capacity end of the bandset condenser.

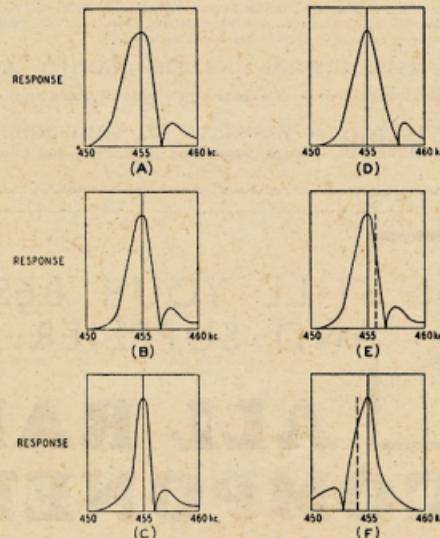


Fig. 1—showing how the selectivity of a crystal filter changes with the setting of the selectivity and phasing controls. As the selectivity is changed, the pass-band is made narrower, as indicated in A, B and C. The phasing control changes the position of the notch, as shown in D, E and F (selectivity same as in B). The relative location of the b.f.o. frequency is shown by the dashed line in E and F.

then an owner is often justifiably reluctant to work over a receiver because he is afraid he might impair its resale value in some way. But one thing that can be done without endangering its turn-in value is to make certain that the receiver is properly aligned, and peaked on the Amateur bands. The i.f. alignment should be checked to be sure that its peak coincides with the crystal filter frequency, but just touch up the i.f. trimmers and not those associated with the crystal filter (the modern ones are tricky and you can foul them up in a hurry). You do this by first tuning in a steady carrier (b.c. or frequency standard) with the crystal filter in the sharpest position and with the S meter

SELECTIVITY AND OVERLOAD

Now let's get down to some of those ideas we had at the start, when we got that punch in the nose. One big operator fault is in not knowing the limitations of a receiver, and as a consequence unjustifiably criticising a transmitted signal for a crime it didn't commit. Any superhetrodyne has limitations of selectivity and signal-handling capability, and you can't call yourself an operator unless you can recognise them.

Take front-end selectivity, for example. Unless you realise that your receiver can have "images" in the higher frequency ranges, you may be one of those who will tell us to get that blank-

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ety-blank short wave b.c. station out of the middle of the 14 Mc. band, which investigation will show to be a powerful station around 15 Mc. riding through as an "image." (It has happened on several occasions, so don't think we are pulling this example out of the air.) You can identify these images easily by setting up the receiver for single-signal c.w. reception—an image will come in on the "wrong" side of zero beat. (If you don't know how to set up the receiver for single-signal reception, we'll get to it a little later.)

If you are troubled with images, do not add any more tubes ahead of your receiver, for reasons to be mentioned in the next paragraph. Your best bet is to get some more tuned circuits between the antenna and the receiver—often a simple antenna coupler (as described in the Handbook) will improve the image rejection quite noticeably.

Perhaps you have been criticising a powerful local Ham station for "birdies" throughout the band, when investigation would show that it is caused by overloading of your receiver in the front end or in the first i.f. stage. Check on the "birdies" by using a small receiving antenna and backing down on the "gain" control. We know of instances where some of the older receivers that had two r.f. stages ahead of the mixer were greatly improved by removing one of the r.f. tubes and plugging in a small (5 or 10 pF.) coupling condenser from grid to plate at the empty socket. The strong local signals cleaned up as if by magic, and one could copy signals a lot closer to them (frequencywise) than before.

In a case like this, where you are trying to copy a signal near a really strong one, you are usually forced to resort to manual gain control, since the a.v.c. system just can't handle the situation adequately. This is especially true if the interfering signal is pulsing or syllabic in nature, like c.w. or s.s.b. An ideal receiver would have all of the selectivity between the antenna and the first tube, but of course it just can't be built that way with present techniques. Another approach would be to use transmitting-type tubes as linear amplifiers up to the high selectivity portion of the receiver, but this hasn't found too much favor yet. It is therefore mandatory that you keep the signal levels down to some low value until you can get into the selective circuits of the i.f. amplifier. In any event, try handling strong signals with the manual gain control, and don't rely on a.v.c. under all circumstances when copying a.m.

C.W. SELECTIVITY

Some c.w. operators like selectivity, and others prefer to depend upon their ears. We aren't going to make an effort to change anyone one way or the other, but if you are one who doesn't use his crystal filter because he doesn't know how to—or you aren't alone, believe us!—we heartily recommend that you spend a little time with it. All selectivity does for you is to make the selectivity "window" quite a bit narrower, so that fewer signals can get through with any one tuning-dial setting. The crystal "notch" (adjustable through the "phasing" control) is used to increase

National Field Day 1954 Results

All sections of this year's National Field Day Contest were won by Harold White, VK2AHA, operating portable from Headread, seven miles south of Newcastle, with a power input of eight watts. Harold is one of our keenest and most consistent operators of portable equipment and his score this year shows what can be done with relatively low power equipment.

A new system of scoring was tried out this year in an endeavour to encourage the use of low power equipment. An examination of the logs submitted indicates that this was quite a successful experiment. Quite a number of stations operated with powers of under five watts and nearly all were under 10 watts. The corrected scores showed that the use of the inverse multiplier had the effect of equalising the scores of the higher scorers.

The change of date from the Australia Day week-end was apparently successful although it was unfortunate that the day selected clashed with the A.R.R.L. Contest. The date was decided on long before the announcement of the A.R.R.L. Contest was received, and could not be changed at short notice.

Logs are still very much below standard and this makes the job of the Contest Committee harder than necessary. In an endeavour to assist contestants submitting logs for future contests the following faults are taken from the N.F.D. logs:

★ Several contestants did not indicate whether contacts were made on phone or c.w. All were placed in open section.

the rejection on one side of zero beat, so that a c.w. signal tunes from a high beat note down to zero and comes up very weakly, if at all, on the other side. This is called "single-signal reception." If the b.f.o. is set improperly you will not get it well. The "selectivity" control selects a crystal-filter bandwidth for you, from a broad one to a sharp one, and you use the setting you like or that conditions call for. But you must remember one thing—the more selectivity you use, the more carefully you must tune, because a signal won't occupy as much space on the tuning dial with selectivity as it will without.

While listening to a particular signal, you can reject an interfering one by readjustment of the phasing notch if you care to, or by switching to a more selective setting and retuning the receiver a bit, to put the interfering signal "out of the window." A common error is to reserve the crystal filter only for times when you run into QRM, but unless you know your receiver well, you run the risk of losing the desired signal when you switch in the crystal filter, and it is advisable to do all of your tuning with the crystal in and set for single-signal reception.

PHONE SELECTIVITY

The use of selectivity (crystal-filter and other) in phone reception is a whole article in itself, and it will be discussed at some later date.

★ Most of the contestants did not take the trouble to work out their scores.

★ None of the logs submitted by multiple operator stations showed which operators made the actual contacts. Rule 18 allows Certificates to be awarded to each operator provided he made at least 25 per cent. of the contacts. As the logs did not contain the necessary information, these Certificates cannot be awarded.

We are now at the end of our Institute year and a new Contest Committee will be taking over. The job is not an easy one, but you can help them by following a few simple rules when making out your log.

★ Read the rules of the Contest carefully and include in your log all the information required.

★ If possible use the standard Institute Log Sheet.

★ Put your Call Sign, Name and Address on the first sheet of the log.

★ Total up your score and summarise the results on the last sheet.

★ State which section of the contest you wish to enter.

RESULTS

Open Section

VK2AHA	33.54	points
VK2ASW	29.8	"
VK2AMV	25.16	"
VK3AID	17.25	"
VK3ACE	6.3	"

Phone Section

VK2AHA	30.4	points
VK4TN	19.17	"
VK3LN	16.8	"
VK3RN	11.25	"
VK3YS	4	"
VK4SF	3.72	"
VK5JO	3.65	"
VK3DY	1.8	"
VK3JO	1	"
VK3SS	1	"

C.W. Section

VK2AHA	3.146	points
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Fixed Stations

VK5RG	75	points
VK7DR	40	"
VK2ABT	35	"
VK5XX	25	"
VK2HZ	20	"
VK3GE	10	"

Check Log

VK2ALG/P

— — —

VK-ZL CONTEST CORRECTION

It has been noted that an error has been made in the scores published in the April issue. VK4RT was shown in third place in the Open C.W. Section with 2794 points. This entry should have been in the Open Phone Section with this score. VK4RT is now the winner of this Section with VK4SF second. Apologies are extended to both competitors.

Federal Contest Manager

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Geloso Signal Shifter

One of the problems which beset the Amateur is that of providing drive to his final amplifier on the 80, 40, 20, 15 and 10 metre bands. The most popular method of doing this has been to use a doubler string and couple the final amplifier to the one required. This method works quite well, but requires a large number of valves; if a v.f.o. is used to drive the string, say three tubes for the v.f.o. and a minimum of four for the doublers, making a total of seven in all. Apart from the expense angle, the additional valves take up quite a bit of space.

In the **Geloso Signal Shifter** we see an entirely different approach. Here we have sufficient output available to drive an 807 to full ratings on all five bands, and in addition, v.f.o. control as well, and best of all three valves do the whole job, which means a big saving in space and cost.

The physical layout is shown in Fig. 1 and the circuit in Fig. 2. Taking the physical layout first, the chassis dimensions are depth 5 $\frac{1}{4}$ ", width 4 $\frac{3}{8}$ ", chassis turnround 2 $\frac{1}{4}$ ", and dial width 8 $\frac{1}{4}$ ".

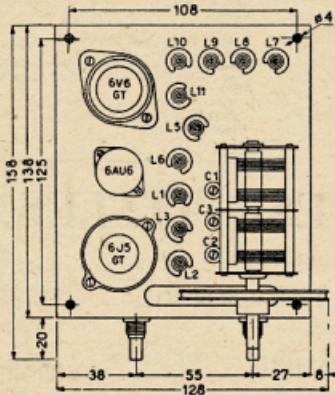


Fig. 1.

This means that as the dial spindle is centrally located in the dial escutcheon, but to the right hand side of the chassis, a space is available to the right of the condenser for an 807, plate tank, and plug-in coil, to be mounted on an auxiliary chassis. It can be seen that a very compact five-band 50 watt r.f. unit can be built which would not be much wider than the dial escutcheon or much deeper than 5 $\frac{1}{4}$ ", so that the whole transmitter would not be any larger than the average Amateur's v.f.o.

A large modern dial is fitted to the exciter, directly calibrated for the five bands, and by following the alignment data, accurate calibrations are obtained, if the trimmers and slugs are set with the aid of a good frequency meter.

A study of Fig. 2 will show how the exciter operates. A 6J5 is used as a

Clapp oscillator with three separate inductances, L1, L2 and L3, each slug tuned. The tuning condenser is divided into four sections of 50 pF. each, and are switched as follows:—

80 metres—Two 50 pF. sections in parallel (C4, C5) and inductance L1.

40 and 10 metres—One 50 pF. section (C6) and inductance L2.

20 and 15 metres—One 50 pF. section (C7) and inductance L3.

Trimmers are used to adjust the high frequency end of the bands, and the inductance slugs the low ends.

With the above combinations, the inductances are of such value that L1, in combination with the condenser sections mentioned previously, covers 3.5 to 4 Mc.

Similarly L2 covers 7 to 7.45 Mc. on its fundamental, and L3 covers 3.5 to 3.6 Mc. also on its fundamental.

The 6AU6 is capacity coupled from the oscillator cathode, and acts as an isolator with a 5,000 ohm plate resistance, for 80 and 40 metre operation, and on the 14, 21 and 28 Mc. bands as a doubler, with slug tuned plate inductances. The 6V6GT output stage has a series of five slug tuned inductances in the plate circuit, each tuned for output

The dotted lines show the suggested external connections, and it will be noted that if a 35,000 ohm potentiometer is used in the 6V6 screen, a control of excitation to your final is obtained.

The unit supplied to us was set up and tested for oscillator drift and stability, and was found quite adequate for Ham purposes.

It is recommended, however, that a regulator tube be used to control the voltage to the oscillator to prevent any frequency shift with mains voltage changes.

Another point is stressed. It is necessary to see that the h.t. supplied to the exciter is 400 volts as recommended, a drop of 50 volts makes a big difference to the output, so see that it is 400 volts under load and an 807 will be driven fully on all bands.

The total current requirements of the exciter are about 50 Ma. at 400 volts, and with this h.t. supply, the 807 was obtained (25,000 ohm grid resistor):—

80 Metres	Drive	8 Ma.
40	"	4 "
20	"	10 "
15	"	3.7 "
10	"	4 "

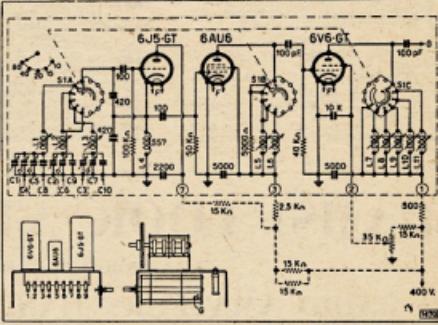


Fig. 2.

Band Mc.	Clapp Osc. (6J5)	Isolator (6AU6)	Power Amp. (6V6)	Final Output
3.5	3.5-4.0 Mc.	Aperiodic Amp.	3.8 Mc.	3.5-4.0 Mc.
7	7.0-7.45 "	Aperiodic Amp.	7.26 "	7.0-7.45 "
14	2.5-3.1 "	Doubler 1.1 Mc.	1.1 Mc.	2.5-3.1 "
21	2.5-3.6 "	Doubler 7.15 Mc.	21.25 "	21.0-21.5 "
28	7.0-7.45 "	Doubler 14.1 Mc.	28.23 "	28.0-28.8 "

on the band required. This stage operates as a straight amplifier on 80 and 40 metres, a doubler for 20 and 10 metres, and a tripler for 15 metres.

It is important to note here that the output to the following amplifier to be driven from the exciter is capacity coupling and if any attempt is made to connect a co-ax line, the added capacity of the co-ax will detune the inductances, and as only a limited range is available for adjustment, the inductances could not be resonated.

Provided the normal capacity coupling to an 807 is used, with a 25,000 ohm grid resistor, and the lead to the grid is kept short, everything will operate perfectly.

A multi-contact switch, S1 A, B, C, is used for band changing of all these circuits, so that drive to your final is obtainable on all bands at the flick of a switch.

These readings were taken without plate or screen voltage applied, and need to be reduced by 25 per cent. when the final is loaded.

As an experiment, pin 1 of the 6V6 socket was grounded and a metal 6L6 we had on hand plugged in. After resetting the slugs on the inductances, it was found that for the same plate and screen voltages, about 25 per cent. greater output was obtained.

Our opinion of the **Geloso Signal Shifter** is that any person starting out in Amateur Radio could not do better than get one of these units and follow it up with an 807 final. He would then have a cheap flexible transmitter for a minimum of cost, capable of transmitting on our five most used bands.

We are indebted to R. H. Cunningham Pty. Ltd. for making one of these units available for test.

AMATEUR CALL SIGNS FOR MARCH AND APRIL, 1954

ADDITIONS

New South Wales

2AN—R. Howland, 3 Balfour Ave., Caringbah.
2FP—T. G. Donald, 127 Howland Island.
2GQ—H. J. 99 Elizabeth St., Chester Hill.
2AGJ—Griffith Radio Club; Station: Rio Theatre, Banna Ave., Griffith; Postal: 43 Canal St., Griffith.
2AL—J. L. Leeds, 589 Fisher St., Broken Hill.
2AOH—H. H. Huguenin, 39 Fording St., Fairfield.
2AQW—J. S. Walker, 23 Shell Cove Rd., Neutral Bay.
2AU—C. I. Falconer, The Golf House, Terrell Rd., Terrial.
2AU—S. Innes, 120 MacPherson St., Cremorne.
2AP—K. Postler, 121 Brighton Bvde., North Bondi, Sydney.
2AVC—E. G. Champion, 3 Crescent Ave., Ryde.
2AE—J. F. Fawcett, 67 Bulte St., Dulbe.
2AVS—E. Sundstrom, 10 Greenfield Ave., East Willoughby.

Victoria

3QB—W. J. Mills, 22 McDonald St., Mordialloc.
3AKX—D. C. Kirton, 9 Hilda St., East Melb.
3ASF—B. R. Forbes, 28 Knight St., Shepparton.
3AS—S. S. St. George, C/o. 3SH Transmitter, Lake Bogong Rd., Swan Hill.

4CP—H. F. Watts, Cr. Kitchener and Herries Sts., Toowoomba.
4DG—K. D. M. Grie, Winch St., Quilpie.
4GE—E. G. Ginn, 23 Flemington St., Hindmarsh.
4HD—N. Bissire, Wills Island.
4LY—C. B. B. B. St., Cooparapoo.
4YP—C. I. Patterson, Fig Tree Pocket Rd., Fig Tree Pocket.

South Australia
5AF—A. S. Little, 32 Elder Trce., Dunleath Gardens.
5GE—R. G. Pitts, 2 Beerworth St., Port Augusta.

Western Australia
6IW—A. F. Wreford, "Hill View," Frederick St., C. O. Connell.
6VK—V. J. Kinney, Station: C/o. Station 6AM, Northam; Postal: C/o. P.O., Northam.

Territories
9HO—H. T. Overend, C/o. R.T.C., Kavieng, T.N.G.
9SP—R. Fleming, C/o. Australasian Petroleum Co., Port Moresby.

ALTERATIONS

New South Wales
2KL—187 Bookers Road, Bookers Bay.
2LU—88 Hood Street, Yagoona.
2NH—10 Royalist Road, Cremorne.
2OH—23 Blakesley Road, South Hurstville.
2P—20 Georges Road, Lakemba.
2WJ—C/o. O.T.C. Receiving Station, Bringelly.
2YO—41 Boundary Street, Spion Kop, Felaw Main.
22B—90 Juno Parade, Bankstown East.
2ADT—20 Rose St., Liverpool.
2AFQ—Station: Bobbin Head Road, Tumutara.
Postal: C/o. Raymex Supplies Pty. Ltd., G.P.O. Box 3787, Sydney, N.S.W.
2AOU—28 Berrie Road, Beverley Hills.
2AZ—120a Victoria Avenue, Strathfield.
2ARS—534 Parramatta Road, Arncliffe.
2ART—Post Office Residence, Raymond Road, Glenbrook.
2ASA—Tuggeranong, via Wyong.
2AA—127 Taroona Street, Warburton.
2AVB—C/o. Post Office, Stockinbingal.
2AWZ—1b Wharf Road, Marrackerville.
2AXG—28 Cliff Road, Wollongong.

Victoria

3CZ—Station: 2 Vincent St., East Malvern; Postal: P.O. Box 27, Warburton.
3JR—78 Leicestershire Street, West Preston.
3OK—36 Stawell Street, Sale; Postal: C/o. Station 3GI, Sale.
3QF—Criff Grange, Avondale.
3QJ—12 Marine Quay, Balcombe Camp.
3SL—Cambridge Road, Monistore.
3SQ—55 Nepean Highway, Aspendale.
3WR—10 Rostrevor Parade, Mont Albert.
3WV—120a Victoria Avenue, Reception Unit, R.A.A.F. Station, Canterbury.
3AJB—Station: Hazelwood Road, East Warburton; Postal: P.O. Box 27, Warburton.
3AQ—10 Nepean Highway, Seaford.
3AM—120 Victoria St., Milnerton.
3ALE—72 Orme Street, Shepparton.
3AMH—208 Eye Street, Ballarat.
3AMO—121 Park Street, Parkville.
3AMZ—1007 Nepean Highway, Moorabbin.
3AR—120 Victoria Street, East Warburton.
3ARI—53 Henry Street, Casterton.
3ARE—61 Primrose Street, Essendon.

Queensland
4CF—47 University Road, Mitchelton, Brisbane.
4DC—123 Esplanade, Cairns.
4KE—Edward Street, Charleville.
4RA—Douglas Street, Brighton.
4SD—Flemington Street, Wynnum North, Brisbane.

4SG—South Street, Toowoomba.
4SS—35 Whynot Street, West End, Brisbane.
4ZZ—House No. 531, Q.H.C., Doyle Street, Harlinton, Toowoomba.

South Australia

5CH—19 Granite Avenue, Dawn Park.
5KU—1 Bonney Street, Mount Gambier.
5LR—Main Road, Blackwood.
5PW—12 River Street, West Marden.
5RW—2 Silver Avenue, South Brighton.
5TW—122a Victoria Street, Mt. Gambier.
5WX—Post Office Maintenance Section, C/o. D.C.A., Oodnadatta.
5XK—97 North Terrace, College Park.

Western Australia

6GA—54 State Street, Victoria Park.
6SR—430 Great Eastern Highway, Midland Junction.

Tasmania

7AF—80 Hampton Road, Battery Point.
7PF—9 Forest Road, Launceston.
7PJ—"Hillmorton," 213 Donisthorpe Road, Lindisfarne.

Territories

9AU—C/o. R.T.C., Wewak, T.N.G.
9WG—Torres Crescent, Port Moresby.

DELETIONS

New South Wales: VKs 2CN (now operating under VK4CP), 2AA, 2ASL.
Victoria: VKs 2C7, 2C8, 2C9 (now operating under VK4CP), 2AB, 2SP (now operating under VK9SP), 3YP (now operating under VK4PV), 3YY, 3ADC, 3AFM, 3ASW (now operating under VK2AGW), 3AVK (now operating under VK9VK).

Queensland: VKs 4FO, 4HO (now operating under VK9HO).

South Australia: VKs 2DW (now operating under VK5SW), SJQ, 3KI (now operating under VK2AU).

Western Australia: VK5KD.
Territories: VK1AF (now operating under VK5AF).

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FIFTY MEGACYCLES AND ABOVE

NEW SOUTH WALES

April was a very interesting period for the v.h.f. gang. The monthly meeting of the Group was well attended and a very interesting and informative lecture was presented by Mr. Bert Sinfeld on the "Volhohymst", giving those present a clear idea of the working principle.

The direction finding field day was a very enjoyable outing. Stations were 2HL as control station, 2ANF, 2ABO, 2AJZ, 2ATO, 2OA, 2LG and 2CE. Points were allotted for locating a station within 10, 15, 20 and 30 miles of their actual location, plus one point for each contact made during the day. After many cross bearings had been exchanged and maps marked, the results were: 1st, 2AJZ, location 32 miles, contact 20 points; 2nd, 2ANF, 20.29-24.48, equal 30A, 12.14-26, and 2ABO, 0.26-26; 4th, 2LG, 12.12-24; 5th, 2ATO, 0.11-11; 2CE had some trouble with his gear, but had one contact, but of course 2HL, being control station, had the most. However, he had a greater number of home stations been active, more cross bearings would have been exchanged and added interest to the day's activities. Just the same, a great deal was learnt about the need of better gear in v.h.f. work. All taking part agreed that it was an excellent day and with the experience gained will achieve better results in future contests of this type.

Many contacts were made with country stations during April on 144 Mc. 2WH of Forbes was heard on 2ANF, 2MTC, northbound, by 2AJZ and 2NP. 2GUA, Canberra, was heard with a good signal working 2HO, 2ANF and 2AJZ. 2AGY, Newcastle, was worked seven consecutive nights on phone by 2HE, while 2RU has been working on 2MTC.

About midday on 25th April, 2WH at Forbes heard 3RR on 144 Mc.—me, going Hugo, pity there was no contact, 2TA, in Young, is getting 6165 going on 144 Mc.

On April 26th 2TC was unimproved somewhat. 2ANF worked 2TC at Young for the first time on 26th April. 2TC was also heard by 2RU at Gosford during that contact. 2ADT at his new location at Inverell is reported to have worked 4CU on 50 Mc., so watch out for these stations.

2MTC and 2ABO were heard on 50 Mc. were 2ARM, 2HE, and 2HO.

Now here is a very interesting note on neutralising v.h.f. receivers: The method of neutralising v.h.f. triodes, e.g. 6AK5, etc., by cutting off control grid leak currents is not suitable. A test of this method in which a cascade was neutralised by inserting a tube, minus pin 3, proved that the neutralising coil had to have considerably increased inductance. The reason is that the converter was very much out of neutralisation and showed an excessive noise figure.

The converter was re-neutralised using the method of disconnecting the heater voltage, but still leaving the bias on by means of interstage neutralising. This effect was proved to apply to other 6AK5s, showed no change of neutralisation.

It appears that internal capacitance of the 6AK5 is considerably different when only one side of the heater is connected to ground for r.f. This effect may well apply to other tube types, such as the 6J6 or 12AT7, but was not tested. The writer, George of JG, 2ANF, who will be interested in any comments.

To those who wish to keep abreast with v.h.f. activities, listen to the v.h.f. broadcast from 2WI each Sunday night at 1830 hours when details of field days, lectures, and other items of interest are given. These broadcasts are originated on 2 Mc. and relayed on 6 Mc.—2APQ.

VICTORIA

The annual election of office-bearers took place at the v.h.f. meeting last month and the new ones were: President, Mr. H. H. H. H. President; 30J, Bob Stevens, Secretary; 3LN, Len Moncur, Publicity and C.D.E.N. Organiser; 2AJCH, Cedric Syme, Vice-President. After the formal business, a discussion took place on the field day, from 2ADU to 2AEC, held near Bacchus Marsh, 3Y3 to Arthur's Seat at Dromana, 3LN Oliver's Hill, Frankston, 3OJ to Kinglake.

The big news was that 3Y3 was successful in working TPF and TBQ and as this news spread throughout the afternoon, all interest in the field waned in favor of VK7 and all beams went southwards. However, the VK7s were not heard in Melbourne or by 3LN at Frankston. The weather was very bad, due to temperature inversion, it seems likely that VK7 contacts could be made from Arthur's Seat on a normal occasion. So in future field days, the gang will make sure the "seat" is occupied by someone else.

The "Fox" Hunt was the most successful yet, with six milles in the field. On the first run

the "fox" succeeded in evading the hounds. On the second, 3ALY made the catch, but whilst the fox was reporting back to control, 3Y5 and 3ACH were right at hand. On the third run to the final location under the bridge on the Bells line, all seemed to be quiet, but no one was successful whilst the fox was on the move. A total of 12 of the gang had supper under the bridge as the rain had recommenced. There more nobodies are reported to be under construction for the next run and we are now short of home stations.

With the appearance of 3AGD at Dunkeld on 2 Mc., considerable possibility of DX from Melbourne is apparent, with 3ZL and 3GM at Ballarat, 3AGV at Colac, 3NGN Warrnambool, 3CN, 3NQ, 3AN and 3AT at Portland. 3AGD has made contact with 3ACH and has heard 3LN and 3HQ, the contact with Cedric being approx. 160 miles, which would seem to be a land record for the 3AGD was using low power to a 100 element beam atop his tall tower. 3ZR and 3CR made an expedition up to Reed's Lookout in the Grampians with the idea of working VK5, but no go as conditions were very poor, however, a report has come from SWL that there were 1000 contacts. It is a pity the beam was not swung in VK2 direction. 3ATB has left for abroad, and Melbourne stations are looking forward to a signal from the Benalla area soon on 2 Mc.—3LN.

SOUTH AUSTRALIA

Further to my remarks on the 12AT7 last month, Feb. "CQ" has an interesting circuit of an oscillator-multiplier using the two halves of the triode with the controlling crystal connected across the cathodes. It is a modification of a circuit in a vacuum-tube circuit devised by Butler, England, during the war. The feed back is obtained by connecting a 30 pF. capacitor between the plates, and the output on the harmonic frequency desired can be taken from the plate of the second half. Output up to the 10th harmonic can be used to drive another 12AT7 to the 40 Mc. region. This appeals to my Scotch instincts. A tube which we haven't seen here yet, the 5BQ7, has been mentioned by 2BQV who has better heater cathode insulation for cascade circuits.

Curious as to the 12AT7, I have taken up my Handbook and noted with satisfaction that the maximum d.c. heater-cathode voltage is 250v. Another interesting fact too is that when used in a push-pull grounded grid circuit, the overall input impedance is 100 ohms, 250 ohms and 300 ohms at 180v. plate supply with grid bias of -2v, and -1v, respectively. As a single ended grounded grid the gain is about 10 db at 10 Mc., 12 db at 40 Mc. with a noise figure of 8, which is better than 10 db. Push-pull operation will give better figures as the L/C ratio can be improved with the tube capacities in series.

I seem to remember Reg 3RJ having a 238 Mc. tx up to 10 Mc. here comes an opportunity of a complete wide-band project for the hobby areas where transmission line pick-up is hard to eliminate. Using a 6BQ7 (substitute 12AT7 here) in a cascade, the relay, power supply and preamp, unit fits into a can about 10 x 6 in. and can be mounted right at the feed point. The high output to the 300 ohm transmission line enables the converter to be operated at lower gain and so reduces the noise very considerably. This might be worth trying Tom, and you can complain of a high noise level at P.G. Henman.

Clem SGL couldn't hear anything from 3RR recently and it appears as though we v.h.f.ers on the Plains will need a relay on Mt. Loftus before we will succeed in working the VK3s and 3Mc. stations. I am not so sure about another good launching ground, too, for some 2K signals to the North-East! Most of the activity in Adelaide seems to be centred around the 6 and 2 mc. "quadruplex" link of Keith SMT (one of the best) and the 3LN gang, working with Col 3RQ, Doug 3DD and Ken 3KC on 2 mc. Since everybody can hear and speak their mind, I can see only one difficulty—I'd have to be careful of my shack "back-chat".

On 6 mc. I have the regulars with Brian 3CA, 3LN, Chas 3CN, 3OJ, 3JO and Doug 3MD working most nights. My gear is in the shack and it's too cold for me down there—anyhow, it's only when an Instrastate contest on the air that the President needs to come on the air in Mt. Warwick? Notice the 300 ohm line flapping in the breeze at your QTH, something cut it, eh?

My scribe, Ray 5BT, apart from giving me most of my local news, this time pointed out that the article on the ASB Conversion was attributed to G.R. of Portsea, SPV, and must hasten to apologise to Bob ROPER, SPV, because the fault was entirely mine—3XU.

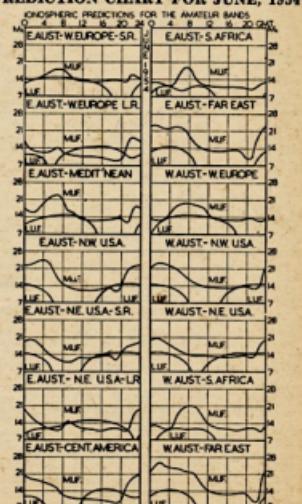
TASMANIA

As no notes have been forwarded from Tasmania for some months, these notes will cover the general conditions on the v.h.f. bands in Tasmania. In the State, over the last few months, 50 Mc. has not appeared to have been as good as in the more Northern States and it is considered by VK7s that they are handicapped by being too far South, this possibly accounted for the lack of interest in the band as the only stations who have operated on 50 Mc. in the last two years have been 2AB, 7AJ, 7BQ, 7LZ and 1EF. Checking back my log, over the past four seasons, showed that the more unusual stations are working more late in the season.

On 144 Mc. the activity is now all centred in Hobart and Launceston. In the South, 7AJ and 7LE are both active on this band, although no details are available on the exact set-ups. Whilst in Launceston for the Annual Show, 7MY and 7OM were very interested in the local rigs and have both taken rough copies of crystal converters as used by 7PF and 7LZ. In Launceston several 144 Mc. field days have been held over the last few months and has resulted in much more interest being taken in this band. Stations operating on 144 Mc. are 7BQ, 7LZ, 7PF and 7XW. Details of the equipment used by these stations are: 7BQ runs 200 w.p.s. on 144 Mc. and has a 12 element stacked array and the rx a four tube cascade converter (6AK5, 12AT7, 6AK5, 6BQ5) (6BA8) running on 750 watts. The antenna is also a 12 element stacked array with a 750 w.p.s. converter using a 6J6 as an overdrive xtal osc.-multiplier, 6AK5, 6B6 cascade r.f. amplifier, 6AK5 2nd r.f. amp., 6AK5 mixer feeding into a revamped 7PF. 7PF's rx is an 815 running 60w. whilst the antenna is a 12 element stacked array. The rx is the same as that of 7LZ. 7XW is at present using an 832 to a halo. Chris receives on a super-regen. rx. Freq. used by these stations are: 7BQ, 145.512 Mc., 7LZ, 144.5 Mc., 7ZL, 144.128 Mc., 7OM, 145.35 Mc., 7CA and 7TE are also expected to be operating on 344 Mc. in the near future.

3VS was heard by 7LZ calling CQ on m.c.w. at 1830 hours on Sunday 20th April, contact was established and 3VS was heard in Launceston until he concluded at approx. 1645 hours. During this time QSOs were made both on phone and m.c.w. with signals ranging from 10 to 58. 7LZ also contacted 3VS on phone at 1815 hours. 7PF's rx signals were heard. This makes the fifth consecutive year that VK7-VK3 contacts have been made and in practically every instance the Tasmanian stations have operated from much higher than 50 ft. above sea level and from locations in Tasmania. Operators would like to see the calling frequencies of Interstate stations published in "Amateur Radio".—7LZ.

PREDICTION CHART FOR JUNE, 1954



FEDERAL, QSL, and



DIVISIONAL NOTES

FEDERAL

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Fed. Secretary: G. M. Hull, VK3ZS, Box 2611W, G.P.O., Melbourne.

QSL Bureau: R. E. Jones, VK3RJ, 23 Landale Street, Box Hill, E.11, Vic.

DX C.C. Manager: G. I. Morris, 50 Eighth Street, Parkdale, Vic.

NEW SOUTH WALES

President: Jim Corbin, VK2YC.

Secretary: Harry Hickin, VK2ACH, Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Gloucester Street, Sydney.

Divisional Sub-Editor: Ted Whiting, VK2ACD, 16 Loudon Street, Five Dock.

QSL Bureau: J. B. Corbin, VK2YC, 78 Maloney St., Eastlak, Sydney (Inwards and Outwards).

Zone Correspondents: **North Coast and Tablelands:** Noel Hume, VK2H, 111 Avondale Way, Murrurundi, New South Wales; **North:** Ron McD. Smith, VK2ASJ, 88 Dunbar St., Stockton, Coaldale and Lakes; **Hayes:** Harry Hawkins, VK2YL, 27 Comfort Ave., Cessnock; **Western:** W. H. Sutt, VK2W, Cullinan, Western Australia; **South and Southern:** Eric Fisher, VK2DV, 2 Oxalide St., Warrawong; **St. George:** Chas. Coyle, VK2YK, 84 Carlton Cres., Kogarah; **Western Suburbs:** Barry White, VK2AB, 33 Flavelle St., Concord.

FEDERAL

LIMITED A.O.C.P.

Under the heading "New Deal For Radios Hams" in the daily press on 7th May, Mr. Anthony, Postmaster-General, announced amendments to the Wireless Telegraphy Regulations to allow the issue of licenses to applicants who pass the theory and regulation papers of the Amateur Operators' Certificate. Proficiency, but who do not sit for the usual morse code section of the examination. The age limit for the passing of the Amateur examination—either normal A.O.C.P. or the new Limited A.O.C.P.—has also been reduced from 14 years to 16 years, Mr. Anthony said.

Readers will recall reference to both these matters in these columns during the past year. Once again, by virtue of unity of the Amateur movement, the Wireless Institute of Australia has been the representative that brought about both privileges. The issuance of the Limited A.O.C.P. has been seen as the only real necessity for an amendment to the Regulations under the Wireless Telegraphy Act, but is gratifying to know that applications for the license can now be made by those who have passed the examination in theory and regulations.

Under the regulations covering the issuance of new radio licenses, licensees are limited to operation in the regular Amateur frequency allocations from and including the 144 Mc. band. However, at any future date the Limited license holder may obtain the full A.O.C.P. qualification by merely sitting for and passing the morse code test.

FEDERAL CONTESTS COMMITTEE

Under the Federal policy of forming the Federal Contests Committee in other than the Victorian Division with a view to giving the other Divisions an opportunity to gain experience in participating in Federal contests to some extent, the New South Wales Division has successfully completed the operation and organization of Federal Contests for the past few years. Although under changing administration in the Division, the members of the Committee changed during its term, it carried out the Contest activities in fine style and deserve the thanks of the Federal Council.

To relieve the New South Wales Division, the South Australian Division has now accepted the responsibility of operating the Federal Contests for the ensuing year. There is no doubt that this Division will do an excellent job of conducting this part of the Federal administration.

VICTORIA

President: G. Dennis, VK3TF.

Secretary: C. Gibson, VK3FO.

Administrative Sub-Editor: Mrs. G. Pickering, Law Court Chambers, 181 Queen St., Melb. Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.

Divisional Sub-Editor: K. E. Pincock, VK3AFJ, 14 Dunscombe Ave., Ashburton, S.E.11.

QSL Bureau: Inwards—Graham Roper, VK3ZE, 298 St. South Caulfield, Vic. Outwards—Frank O'Dwyer, VK3OF, 193 Thomas St., Hampton, S.7, Vic.

Zone Correspondents: **Western:** T. B. Rodda, VK3ATR, Box 254, Warracknabeal, South Western, W. 11. **North:** W. W. Wainbough, and E. Giddings, VK3ANG, 8 Nelson St., Warrnambool; **North Eastern:** A. D. Buchanan, VK3PD, "Boorondal," Wahring; **Far North Western:** M. Folie, VK3JG, 101 Lennon Ave., Mildura; **South Eastern:** D. Dwyer, VK3SS, and John Battwick; **North Central:** C. Case, VK3ACE, Cumming Ave., Birchip.

QUEENSLAND

President: Harold Murphy, VK4HM. **Secretary:** Ern Moore, Box 638J, G.P.O., Brisbane.

Meeting Night: First Friday in each month at the Royal Geographical Society, Room, Ann Street, City.

Divisional Sub-Editor: J. T. Hope, VK4XL, Royal Parade, St. John's Wood, Ashgrove.

QSL Bureau: Inwards—J. Files, VK4JF, Wanda St., Buranda; Outwards—Miss Clair O'Brien, 93 Jardine St., Stafford.

MEMBERS OF ADVISORY COMMITTEES

FOR 1954

The following Amateurs have been appointed to the Amateur Advisory Committees operating in each State of the Commonwealth to keep watch of the Amateur bands in an advisory capacity. They are also to advise the licensing operators to incorrect operating practices and modes of transmission. The activity of the Advisory Committees has been the means of obtaining official action by the Postmaster-General in the interest of Wireless bands, relating to breaches of the Regulations governing the operation of Amateur Wireless Stations where such breaches have been committed by the operator of a station. The co-operation of all Amateurs in the matter of bands which are held can be kept clear of "law breakers" and spurious radiations.

New South Wales

Mr. G. T. Bruce, VK3GT.
 Mr. J. A. Lindsay, VK3AKR.
 Mr. O. R. Pearce, VK3IV.
 Mr. J. C. Pinnell, VK3ZR.
 Mr. L. H. Taylor, VK3ZL.
 Mr. V. H. Wilson, VK3EW.

Victoria

Mr. R. A. C. Anderson, VK3WY.
 Mr. A. L. Brehaut, VK3SB.
 Mr. C. R. Gibson, VK3FO.
 Mr. G. W. Manning, VK3XJ.

Queensland

Mr. J. C. Files, VK4JF.
 Mr. G. Harmer, VK4XW.
 Mr. T. Hewitt, VK4PD.
 Mr. L. J. Martin, VK4LM.
 Mr. F. Pickles, VK4FP.
 Mr. H. Scholz, VK4HR.

South Australia

Mr. C. A. Duddridge, VK5CD.
 Mr. J. E. Farnsworth, VK5CE.
 Mr. H. K. Stacey, VK5XA.
 Mr. C. D. L. Tilbrook, VK5GL.
 Mr. D. R. Whitburn, VK5BY.
 Mr. G. E. Wiencke, VK5GN.

SILENT KEY

It is with deep regret that we record the passing of—
VK5BF—Francis George Miller,
 April, 1954.
Ex-VK7CS—Cecil Scott, March,
 1954.

DIVISIONAL NOTES

SOUTH AUSTRALIA

President: G. M. Bowen, VK5XU.
Secretary: R. G. Harris, VK5RK, Box 1234K, G.P.O., Adelaide. Telephone: J 1151.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: Mr. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.
QSL Bureau: Geo Luxton, VK5RX, 8 Brook St., West Mitcham, South Aus. (Inwards and Outwards).

WESTERN AUSTRALIA

President: F. A. T. Tredre, VK5FT.
Secretary: J. Mead, VK5LJ, Box N1002, G.P.O., Perth.

Meeting Place: Perth Technical College Annex, Mounts Bay Road, Perth.
Meeting Night: Second Friday of each month.

Divisional Sub-Editor: D. E. Graham, VK5HK, 110 Edinboro St., Mt. Hawthorn.

QSL Bureau: Jim Rumble, VK5RU, Box F319, Perth, West. Aus. (Inwards and Outwards).

TASMANIA

President: L. E. Edwards, VK5VLE.
Secretary: G. F. Tait, Box 337, G.P.O., Hobart.
Meeting Night: Second Friday of each month at the W.I.A. Club Room, 147 Liverpool Street, Hobart.

Divisional Sub-Editor: L. E. Edwards, VK5VLE, 128 Strickland Ave., Hobart.

QSL Bureau: Bill Calvert, VK5TR, Box 271B, G.P.O., Hobart. (Inwards and Outwards).

Zone Correspondents: **Northern:** M. A. Chaplin, VK5CA, 36 Trevallyn Rd., Launceston; **North Western:** R. K. Wilson, 11 Cunningham St., Burnie, Tasmania.

Western Australia

Mr. D. E. Graham, VK5HK.
 Mr. J. C. Hoar, VK5ENR.
 Mr. F. C. Lambert, VK5FL.
 Mr. H. T. Mulder, VK5MK.
 Mr. N. F. Odgers, VK5RU.

Tasmania

Mr. T. A. Allen, VK5AL.
 Mr. L. W. Edwards, VK5VLE.
 Mr. A. Hubbard, VK5AX.
 Mr. J. Jenkins, VK5LJ.
 Mr. K. A. Johnston, VK5TRX.
 Mr. W. W. Watson, VK5TY.

SWEDISH AWARD

1. The Västas Radios Radio Club (Sweden) has decided to issue the W.A.V. (Worked All Västas) Certificate, obtainable by licensed Amateurs throughout the world.

2. The Certificate is based on contacts with Amateurs in Västas after 31st December, 1953.

3. Participants outside Europe (DX) shall, with QSL or other written verification, prove contacts with at least two Amateurs in Västas, equals 2 points.

4. Participants in Europe will have to prove by QSL card or other written evidence that they have worked DX stations by working at least 10 Amateurs in Västas.

5. Applicants of the W.A.V. in LA-OB-CZ-SM will have to prove by QSL or other written evidence that they have worked 20 points by working Amateurs in Västas.

6. Each contact with Amateurs in Västas on all bands will count one point. The same station may only be contacted ONCE on each band.

7. Applications for W.A.V. may be sent to "W.A.V. Manager," SMSW1, Emausgatan 45 E, Västas, Sweden. Each entry must include QSLs or written verifications of the contacts concerned, as well as a list of the contacts, calls, frequency, date of QSO, CW or Phone.

8. Cost: Four International Reply Coupons.

FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Harold Webber, VK5PJM, is at present en route to the U.S.A. on a business trip. When he visits the U.S.A. he plans to make a few Ham visits in both countries as time permits.

The Hailcrafters sponsored expedition to the Clipperton Island was treated to a rough house by the elements. En route to Clipperton, they ran into heavy swells which blew away their aids and ultimately forced them to turn about. They had been working hourly sited on 14100 Kc. on the way down and quite a few VHF stations made the contact with the ship. When things got bad they sent out a blast for help

and a Mexican station owned by General Majoro, of the Mexican Army, heard their call and arranged for help to be sent. Finally they managed to get their own generator running. Clippers and the weather still being heavy with big seas and gales. They were unable to land sufficient petrol to keep their power supply generator running for as long as they wished with a full tank. The number of men in the station VFOAJ were not as numerous as would otherwise have been. The above has been pieced together from titbits supplied by W2CC, VK3BO and VK3CX.

The Colombian Radio Society sponsored an expedition to the Darien, Panama Canal de San Andres from 4th to 15th May. The expedition, which was allotted the prefix VK zero, was scheduled to use the 10, 20 and 40 m bands. The Archduke Charles was in the Caribbean Sea off the coast of Nicaragua. Anyone who contacted the expedition will receive a special certificate on application to the Society.

VISFL Colin Turner, of 1 Polden Court, Jalan Kayu, Seletar, Singapore, is seeking VK QSLs on 7 Mc. He will QSL all contacts or reports.

The many friends of Major Ken Ellis, DL2KE, and holder of 14 other Amateur call signs during the past nine years, will be interested to learn that he is leaving the Army in June and will retire.

XINP active on 14 Mc. during April with a bad note, gave various QTHs off the Australian coast. Claimed he was on a ship bound from Australia to the Orient and neither desired or would send QSLs. Later advices show him giving his address as 1000, 10th Street, Quesada VK9WY. It's "London to a brick" on Alan VK9WY disclaiming all knowledge of his identity.

The ZB1RS125 has received the following from ZB1E. "Most ZB1 stations are operated by Service personnel whose stay at Malta is limited." (My own son has been there 19 months and no relief in sight—nothing limited about that!) "VK9WY" ZB1E is a Canadian maltese resident and suggests it is better to send cards for unlisted ZB1 stations to him for relay as he "keeps track" of all the ZB1 stations. His full QTH is Bob Galea, Casa Galea, Railay Road, Black Rock, Malta.

From the same source comes, "ZB1AUW is ex-XABQ, IIRF, HA1RF and GS4AU. VSYIN is a Baron, a Sir, and a Lt-Col, as well as being ex-AC4YN, GSYN, VU2ZN and LASYC."

VSSA at Aden, is ex-GC2BHU and is due to return to England in September next.

Treb finally wrung a card out of VPAK. He wore him down as he did AC4YN. Treb, like the Mounties, always gets his card.

NEW SOUTH WALES

The Annual General Meeting of the N.S.W. Division was held on the 24th April at Science House. The meeting was attended by a large group of members and was opened a little late by the President, Jim Corbin, 2YC.

Owing to the lack of further nominations for Council, the following five members of Council were re-elected: J. Corbin, 2YC; G. Bruce, 2GT; W. Lewis, 2YB; D. Bellfield, 2ASW; S. Burke, 2EL. Two members remain to be co-opted to Council for the ensuing year.

Following on a discussion on the desirability of employing a paid Secretary for the Division, H. Pittog, ZACH, volunteered to act as Hon. Secretary. On 1954, and S. Burke, 2EL, decided that he would act as Hon. Treasurer for as long a period as he may be available.

There was a considerable amount of comment on the various aspects of the Institute's functions, and the President appealed again for anyone who could help to keep the N.S.W. Institute in any way possible. It was pointed out that the Division will need many helpers during the year to take care of the various activities planned, so any members, and there must be many, are invited to contact any member of Council and give offers of assistance.

SOUTH WESTERN ZONE

Bob 2XP at Dalton is active on 40 and 80 m using a 1000 watt AT5 and a 1000 watt generator power. A new one in the zone is Harry Hilder, 2TB, from near Griffith. I have on good information that Harry was a pre-war operator in the days when they used 400 w. power with the full 160 volt on the plate. Harry has recently moved down from Bourke and hopes to be on the breeze from Griffith in the near future.

2PL reports that the Griffith Radio Club has been issued with a license to operate on 40 m at Club House. Members are invited to listen and call when the call sign comes along. Don 2RS at Albury is active on 80 m, still on QRP while waiting for the a.c. to be hitched up to his QTH. Ross 2A4, a Sectioner, may still occasionally use the AT5 on 40 and 80 m still struggling with the AT5 on 20 m. Ross and Geoff, 2PN and 2BQ, at Tumut, not heard for some time, must be cooking up some little thing down there. The following V.O.W. contest comes at the zone hook-up on 80 m at 1930 hours on Wednesday night, make it a must.

NORTH COAST AND TABLELANDS

Following the recent successful Convention at Urunga, which was attended by many Hams from all parts of N.S.W., and for that

matter other places, activity on the North Coast is for the most part rather quiet. 2PA and Zone Officer 2AHH have been testing their respective stations and have drawn up some circuit diagrams for same. Conclusions drawn—some are better than others. 2HK appears to be rather quiet, what about some notes to Sydney Norm? That's also true. 2XK is on the coast, present. VRAAE and 2ABT have spent quite a bit of their time in the zone recently and visited quite a few of the boys. 2PA had to put him in to get the mud off his shoes before he could find out who he was. The same Pete and 2AQI of Armidale are working steeds on 6 m.

The Inverell boys, aided and abetted by 2ADT, have gone all v.h.f. Amateur Radio has received a new lease of life since Jack got organised up there. 2LJ had some vivid flood experiences—6 feet in the shack. The Darling Downs boys are getting together and getting the power supply, new work shop. 2AEY is growing pampas seed, not oakum. 2AHH was second in VK-ZL Contest in the c.w. section, and third in the phone section. Don't forget the weekly zone hook-up boys.



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763-9	3,000, 5,000	2, 3.7, 8, 12.5, 15	1	40-20,000	15	P.P. 2A3s, A or AB1 to V.C.	62/6
809-26	500	2, 3.7, 8, 12.5, 15	1	50-20,000	15	Line to Voice Coil	42/6
870-26	10,000	2 or 8	1	*20-20,000	**6	P.P. 6V6Gs or 807s as Triodes	57/6
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872-9	10,000	3.7 or 15	1	*20-20,000	12	P.P. 6V6Gs or 807s as Triodes	81/-
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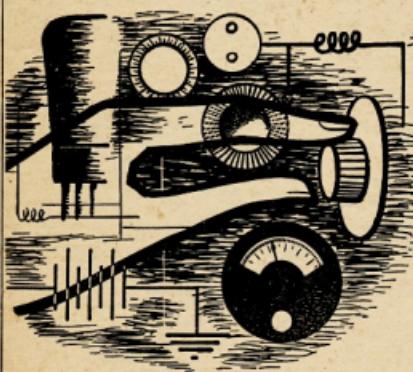
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Aussie Harris, 4TN will again be the Contest Director and **Tom Parsons** will be the Personnel Officer. Aussie has gained the Division quite a lot of publicity over the past year and has had a lot of work in keeping his eye on contest results and sorting out the logical winners in this Division, the contest controller.

On going to take the position of Federal Controller, Traffic Manager and Station Manager has not been clarified, but I hope by next month to be able to give you some dope on these positions.

There has been some changes in the meeting night, but by the time these notes are out there should be some clarity on the situation. The Council is organising some fine lectures in the next few weeks, the first three to be on D.M.E. and Model Plane Remote Control. To all, these two subjects should be very interesting so make a promise to be along. You never know, maybe a few new nights a year and a lecturer can put more into the job if he has a crowd before him.

No news this month from the Ipswich gang, maybe the fellow from the b.b.s. has recruited my spy for his nefarious work. But thanks to the effort of our Country representative I've gleaned a little from the Gympie district. Seems things are much in the doldrums up that way with 4CH busy with his Apex Club and the local b.c. Ic, though Col does hold sketch with 3AM, even the towers down one end. The cyclone also left its mark up there, 4LN's beam has a nice warp, and it's only the cobwebs keeping it up; with his 6M beam stacked away, there is very little activity from him.

4XR thinks Ham Radio on the blink and not very happy with conditions, although he is always there when the band opens on 14 Mc. and the bright ideas of a Mr. and 4HZ has lots of ideas on most things in Ham Radio, but finds time is the controlling factor (don't we all, Jim?). He hopes to be more active with 4JZ. Maybe someone has given him the good oil on construction because I can't imagine him as a June bride, hi. He still has three antennae and getting a lot of benefit from their respective directional effects after observing their effects while visiting an ardent short wave fan.

Local news is very scarce as I've been spending my evenings in a horizontal position, although I do know there have been some good scores in the last few weeks. The best scores seem to be by this. Bill 4YA and Frank 4ZM seem to be the only ones these nights on 14 Mc. Did hear Jim 4PR put a n.f.m. signal on the air, but couldn't stop to hear it. Believe quite a few have found the higher frequencies for 3.5 Mc., but unfortunately at the moment my RX won't tune that low.

Some activity on v.h.f. going on and among one of the call signs heard was Don 4GP.

SOUTH AUSTRALIA

Pro 3FS

The monthly meeting of the VK5 Division was held in the Club rooms on the night of 12th April to the usual representative gathering of members. The Lecturer for the evening was Mr. H. E. Mutton, of Prince Alfred College, and his subject was "Talks on London", the talk was illustrated by photographs taken around the city and projected upon the screen. Mr. Mutton took his listeners to various parts of London, including a trip to the Tower, he pointed out that in this city one can go on a fine day and see a solid 600 feet of fog (if I suspect some Scotch ancestry in the Mutton family tree). These talks that are something different, are appreciated by members and the lecturer is always well received when he is abroad, to share with the lecturer the things he has seen and heard on the other side of the world. A vote of thanks on behalf of members present was proposed by SM2D. In the chair was the new President, Mr. Gordon Bowen, and although nervous, as everybody is in this exalted position, he acquitted himself very well. Gordon opened the business side of the meeting by referring to the list of full members, Pro 3FS, VK5F1, and associate member R. Jeffery, and members stood in silence for one minute as a tribute to their memory.

Visitors were then welcomed by the meeting, and we were very pleased to have with us JAKA, Mr. S. Hughes; our old friend of years gone by 5MH, Dick Bayley—I noticed with interest with a smile on his face and as he has become "what's that about" people living in glass houses not throwing stones? All right, I heard; and E. McEwan and J. Hart. QSL cards were distributed by the QSL Manager, Mr. George Smith.

On the general business, it was brought to the notice of the meeting that the new Call Books were on sale from book stalls in Melbourne, but had not been received in Adelaide. This is a particularly bad oversight by those

responsible and should not be repeated for the next issue. It is only reasonable that all Divisional news about our group activity be sold in the general public. At the time of writing, the Call Books have been received in Adelaide due to the good graces of our Secretary, Reg Harris, who kindly brought them back from Melbourne, while I am sure many on both sides of the border

During the month, the daughter of the Past President (Parsons is the name in case you have forgotten) presented her husband with a baby son and so made dear old Warwick a grand-pappy. Many were the jokes cooked up to speculate on the name of the baby boy, due to a nasty time being had by mother and son, which for a time were quite serious, all the proposed tomfoolery was soft pedalled to serious concern, but all well behind. I would highly recommend that both are doing fine, although Bob is shirking his duties in the nappy washing department and spending his time flying over the skies of Darwin. The poor old boy has given the name of Christopher Warwick, what a hell of a handicap that kid has for the rest of his life.

It is with deep regret that we learn of the passing of another friend in VK5. Francis George Miller, VK5WP. Frank was well known all over Australia with an outstanding signal on all bands, and was interested in radio from the First World War, where he was a Signaller. He was a man of great character throughout his life, being a commercial operator at SMU at Murray Bridge during his working hours and playing Ham Radio during his leisure. His cheery voice will be sadly missed by his many friends in VK and the rest of the world. To his wife we express our deepest sympathy.

WOOMERA RADIO CLUB

The regular monthly meeting of the Club was held in the club room at 8 p.m. on the April last and quite a considerable amount of business was attended to. Congratulations were passed to Max Newell, whose wife has presented him with a baby son, nice going Gwen, a pigeon post note. The new radio room is to be working on a new 100 watts SSB 613 to be followed by Class B 809s as modulators. The next addition will be a suitable microphone so that the old room can be relegated to the dust heap, or shall we say the treasure heap. The month's new member—signed up on the last meeting night—is John Kennedy; John will be officially welcomed at the next meeting.

Quite a number of improvements to the shack have been made, some very interesting suggestions and several ideas put on the books to be attended to in due course. The two element rotary beam is almost finished, the hold up being two pieces of 1 x 12" which has to be cut from a solid block of wood. Adelaide, however it should be along in the near future.

QSL cards are also not delivered as yet, so all you folk who are waiting upon cards from this station, just hold your horses, they will be sent when received. Club member Ray Farmer has got a P.W. card and has secured a pass in theory and regulations and all good wishes go to him for success in this last portion of the examination. A new operator in the club has had to leave the last of operations now quite lately. It was our good Len, the old willing Will always do the share, congrats, to you for the job you are doing up there.)

I notice in the latest magazine that my good friend Mr. Padder Parsons has died. Both blow to "the old dad and so". I mean the Old President Padder Parsons he calls himself, gee that's no kid either, about time you trod on his toes Tom. Cet 5BZ has left on tour of VK5 and VK6 with the others weaves the details of the departure and the excitement will have died down in the "Pearly gates of the Pacific". Look out you fellows that he doesn't sooner one of the crew gets to the "A" line. The British 5BZ is also enroute bound through VK5, VK3 to VK4 in five days, boy oh boy, somebody in that car is going to have breakfast off the mantelpiece for a week or so after they return.

UPPER MURRAY AREAS

The last meeting held was at Hurst's SRE, there were several absences due to that demon "work." 5KW, SCF and EXO being a.w.l. Now that SVO has shifted out of the 80's right, we cannot catch up with so easily, and have to see him again when he has the new job "by the throat" as it were, and can find time to perhaps get as far as Berri, if not the meeting held at the SRE, it is about 25 miles from Renmark to Loxton, so his absence can be excused. Activity here has not been very great, but 3.5 Mc. has been used as a channel to 3AJD for contacts, while trying to reach him on 144 Mc. I am sure that the new tower looks like being the new tank stand, this possibly precludes much action on his part until such time as ways and means can be found to make it a dual purpose structure. Harry SKW turned up on 7 Mc. one Sunday,

by the time we had exchanged a few words, the call to eat sounded, both here and at Berri. The SRE had dined very nicely, and as never before in interchanging with a group, in the execution of his duty. Hughie has been collaborating over 144 Mc. with STL, that's as far as it went, but with SVO has been able to work with him on 144 Mc. for a period of an hour during Easter. (After that Tom, you had better hide your head in the sand and use your tail as an antenna.) It is whispered that Tom has disposed of "Rattling Salvation" to some person in Queensland. To those of you that are not in the know, "Rattling Salvation" was a single cylinder motor which had two wheels attached, heaven forbid that should be seen in a public cycle. Warwick mentioned that he had received a parcel from Les 5UK, so did I, at least you did get something in yours, Pansy, mine contained junk and junk and then some, strangely Les 5UK went and I put my SFO has done the right thing by you, but don't ever do that to me again.

Speaking of SFO, I hear that "James" has spent a month in Africa, putting the family "out to bite" if he doesn't, putting the family "in it", than trying to work all States in the U.S. I can see "Ray" doing the rounds of the scrap metal shops in the black-fellows district with all the old parts parked in the now, not wanted, pram!

No notes to hand from the South East Areas, I can't believe that Col has been so busy with the new home that he has not had time to write. I suspect he has not been able to be extremely withheld to make it tough for me. Stewart is heard regularly on Sunday mornings with a fine signal and lots of DX can be heard on the air. Thanks for the QSP Tom. The tape recordings are in the capable hands of the new President and will be along your way very soon.

As much as it hurts me to say this, I cannot believe that the new President has not come to the very fine job done by the Past President during his two years of office, his one object during that time was the furthering of Amateur Radio and the South Australian Division in particular, that he did and gained the respect of members, not only of the W.L.A. but of Departments connected with Ham Radio. So I say Visa Parsons, long may you be spared to serve our best to the VK5 Division and to the magazine.

WESTERN AUSTRALIA

The last meeting of the year of this Division was held on 27th April, and after the general meeting concluded, the annual meeting followed. The attendance was only meagre. This was due, as was expected, to the fact that members generally do not attend the annual meeting through a system of business, which according to the rules of association, such as ours, does make a dreary couple of hours to many. As long as the Division is active and the Council enjoys the confidence of members, that's all they see to it. Nothing new is evolved—all items of general interest are imparted as they arise during the year, the rest is immaterial. One can imagine the enthusiasm on the part of the average member as to whether participation is considered at 12% per cent. or only 10 per cent.? A really good instructive lecture was given, demonstrating the level of the Ham knowledge, a better means of drawing a good attendance. Even the highlight of the evening, the Presidential report, is only a condensed version of what everybody knows. The meeting was adjourned to the annual meeting substitute for it an annual meeting lasting half an hour (it can be done), and get on with an interesting lecture.

It is some years now since there has been an election to fill all the vacancies in the Council (min., sec. and of course the other six) accounts for it. We cannot create more interest by making bigger and better business. Eight members nominated were elected, and have been invited to compose the new Council. They were VK5LX, Clarry Bishop, last year's Treasurer; VK5OR, Clarry Jack Hoar, last year's Social Contest Officer; VK5LJ, Jack Head, last year's Secretary; VK5FT, Fred Tredrea, last year's Licensee; VK5GM, George Wong, last year's President; VK5AG, last year's VK5AG Sub-Editor. The two new members are VK5WS, Warren Jacobs, and VK5KH, Don Graham.

The Auditor, Skipper Schofield was re-elected, and new and young members joined and take some particular interest in the work of the Institute, it is very re-assuring that such stalwarts as "Skipper" continue to guide the course of our dangerous work.

At the present time SGM is away with the "Wise Men". Vice-President SAG was called upon to conduct the meeting. The audited statement shows a very satisfactory state of affairs. One fact made clear by the Treasurer was that half our subscriptions was paid away

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